

REMARKS

The Office Action dated March 17, 2006 has been received and carefully noted. The above amendments to the claim, and the following remarks, are submitted as a full and complete response thereto. Claims 16-20 have been indicated as allowed. Claims 1-35 are pending and submitted for consideration in this Response.

Claims 1-2, 7-8, 13-15, 21, and 23-25 stand rejected under 35 U.S.C. §102(e) as being anticipated by *Gobuyan* (U.S. Patent No. 5,917,821). The Office Action took the position that *Gobuyan* teaches each and every element recited in the rejected claims. Applicants traverse the rejection and respectfully submit that each of claims 1-2, 7-8, 13-15, 21, and 23-25 recite subject matter that is not taught or disclosed by *Gobuyan*.

Independent claim 1, upon which claims 2 and 6 depend, recites a method for a programmable micro-controller comprising loading an instruction word within the micro-controller, the instruction word having a plurality of instruction fields, and processing the plurality of instruction fields in parallel, each instruction field related to a specific operation for parsing a packet or encapsulating data to form a packet.

Independent claim 7, upon which claims 8-15 depend, recites a programmable micro-controller comprising an embedded memory to store one or more instruction words, each instruction word including a plurality of instruction fields, and one or more processing engines, each processing engine to process the plurality of instruction fields in parallel for each instruction word, each instruction field related to a specific operation for parsing a packet or encapsulating data to form a packet.

Independent claim 21, upon which claims 22-25 depend, recites a computer program embodied on computer-readable medium for controlling a micro-controller, wherein the instruction for the micro-controller comprises, a plurality of operation fields to be processed in parallel by the micro-controller, each operation field related to a specific function for parsing a packet or encapsulating data to form a packet.

Gobuyan teaches an arrangement for parsing packets in a packet-based data transmission network. The packets include packet headers divided into fields having values representing information pertaining to the packet. The arrangement includes an input receiving fields from the packet headers of incoming packets, a memory for storing information related to possible values of said fields, and a device for retrieving the stored information appropriate to a received field value. The retrieving device comprises a look-up engine including at least one memory organized in a hierarchical tree structure, and a controller for controlling the operation of the memory. The arrangement is capable of performing fast look-up operations at a low cost of implementation. Further, the look up engine 3 (alleged microcontroller) retrieves stored information appropriate to a received field value, as shown in Figure 3, and the microcode (alleged instruction word) of the LEC 3 is divided into four main fields (see column 12, lines 11-14).

However, *Gobuyan* does not teach or disclose processing the plurality of instruction fields in parallel, each instruction field being related to a specific operation for parsing a packet or encapsulating data to form a packet, as recited in each of Applicants independent claims 1, 7, and 21. In supporting the rejection, the Office Action takes the

position that column 12, lines 4-67 of *Gobuyan* teaches that the look-up engine can perform up to two tree searches in parallel with microcode instruction, wherein each field of the microcode instruction is inherently related to a specific operation for parsing a packet. However, careful review of the cited section of *Gobuyan* does not support the Office Action's conclusion. More particularly, the cited section of *Gobuyan* does not mention that the tree searching is performed in parallel, as recited in Applicants' independent claims 1, 7, and 21. Therefore, reconsideration and withdrawal of the rejection of claims 1, 7, and 21, along with each claim depending therefrom, is respectfully requested.

Claims 3-5, 9-11, 13, 26-28, and 30-35 stand rejected under 35 U.S.C. §103(a) as being obvious over *Gobuyan* in view of *Rothermel* (US Patent Publication No. 2004-0181690). The Office Action took the position that *Gobuyan* teaches each and every element recited in rejected claims except for the instruction word being loaded from a template, the template having a routine associated with each protocol. However, the Office Action cites to *Rothermel* as teaching this feature, and as such, the Office Action concluded that it would have been obvious to one of ordinary skill in the art to have combined the teaching of the references to generate Applicants' claimed invention. Applicants traverse the rejection and respectfully submit that the cited combination of references, when taken alone or in combination, fails to teach, show, or suggest each and every limitation recited in claims 3-5, 9-11, 13, 26-28, and 30-35.

Independent claims 1 and 7 are discussed above.

Independent claim 26, upon which claims 27-30 depend, recites a template within a system on a chip comprising a plurality of calls to routines, each routine associated with a particular protocol, each routine including one or more instructions, each instruction including a plurality of operation fields that are processed in parallel to parse a packet or to encapsulate data to form a packet.

Independent claim 31, upon which claims 32-35 depend, recites a router having a system on a chip, the system on a chip used to parse a packet or to encapsulate data to form a packet, a method for programming the system on a chip comprising downloading a routine for a new type of protocol to the system on a chip, storing the downloaded routine in the system on a chip, and adding a call to the stored routine in a template, the template tying routines together to parse a packet to extract data or to encapsulate data to form a packet.

Gobuyan is discussed above. *Rothermel* teaches a facility for using a security policy manager device to remotely manage multiple network security devices (NSDs). The manager device can also use one or more intermediate supervisor devices to assist in the management. The system allows the manager device to create a consistent security policy for the multiple NSDs by distributing a copy of a security policy template to each of the NSDs and by then configuring each copy of the template with NSD-specific information. For example, the manager device can distribute the template to multiple NSDs by sending a single copy of the template to a supervisor device associated with the NSDs and by then having the supervisor device update each of the NSDs with a copy of

the template. Other information useful for implementing security policies can also be distributed to the NSDs in a similar manner. The system also allows a manager device to retrieve, analyze, and display all of the network security information gathered by the various NSDs while implementing security policies. Each NSD can forward its network security information to a supervisor device currently associated with the NSD, and the manager device can retrieve network security information of interest from the one or more supervisor devices which store portions of the information and then aggregate the retrieved information in an appropriate manner.

However, *Rothermel* fails to teach, show, or suggest processing the plurality of instruction fields in parallel, each instruction field being related to a specific operation for parsing a packet or encapsulating data to form a packet, as recited in each of Applicants' independent claims. Since *Gobuyan* also fails to teach, show, or suggest these limitations, Applicants submit that *Rothermel* fails to further the teaching of *Gobuyan* to the level necessary to support an obviousness rejection, *i.e.*, the references when taken alone or in combination fail to teach, show, or suggest each and every limitation recited in the rejected claims. Therefore, reconsideration and withdrawal of the rejection of claims 3-5, 9-11, 13, 26-28, and 30-35 is respectfully requested.

Claim 29 stands rejected under 35 U.S.C. §103(a) as being obvious over *Gobuyan* and *Rothermel*, further in view of *Balassanian* (US Patent No. 6,629,163). The Office Action took the position that *Gobuyan* and *Rothermel* teach each and every element recited in the rejected claim, except for identifiers to identify routines for parsing a

packet. However, the Office Action cites to *Balassanian* as teaching this feature, and as such, the Office Action concluded that it would have been obvious to one of ordinary skill in the art to have combined the teaching of the references to generate Applicants' claimed invention. Applicants traverse the rejection and respectfully submit that the cited combination of references, when taken alone or in combination, fails to teach, show, or suggest each and every limitation recited in claim 29.

Gobuyan and *Rothermel* are discussed above. *Balassanian* teaches a method and system for demultiplexing packets of a message is provided. The demultiplexing system receives packets of a message, identifies a sequence of message handlers for processing the message, identifies state information associated with the message for each message handler, and invokes the message handlers passing the message and the associated state information. The system identifies the message handlers based on the initial data type of the message and a target data type. The identified message handlers effect the conversion of the data to the target data type through various intermediate data types.

However, *Balassanian* fails to teach, show, or suggest processing the plurality of instruction fields in parallel, each instruction field being related to a specific operation for parsing a packet or encapsulating data to form a packet, as recited in Applicants' independent claim 26, from which claim 29 depends. Since *Gobuyan* and *Rothermel* also fail to teach, show, or suggest these limitations, Applicants submit that *Balassanian* fails to further the teaching of *Gobuyan* and *Rothermel* to the level necessary to support an obviousness rejection of claim 29, *i.e.*, the references when taken alone or in combination

fail to teach, show, or suggest each and every limitation recited in claim 29. Therefore, reconsideration and withdrawal of the rejection of claim 29 is respectfully requested.

In conclusion, the Office Action's allowance of claims 16-20 is appreciated. Applicants submit that the remaining claims also recite subject matter that is not taught or disclosed by any of the cited references, when taken alone or in combination. As such, reconsideration and withdrawal of the rejections is respectfully requested. Claims 1-35 are pending and submitted for consideration.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'N. Alexander Nolte', is written over a horizontal line.

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